

5/5

W/O SPLIT

DART AEROSPACE LTD	Work Order:	22835 B
Description: Ø3.250 Support	Part Number:	D2940-1
Dwg: D2940 Rev. A1	Qty:	16 <i>70</i>

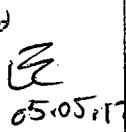
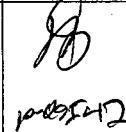
Page 1 of 1

Step	Location	Procedure	By	Date	Qty
1	DC	Issue Traveller. Blank size makes (2) D2940-1 Dwg not required	<i>KJ</i>	05.03.23	10
2	PG	Issue P/O: <i>7007787</i> Description: D6104-007 Material: 17-4 PH SS (AMS 5643 OR AISI 630) as per Dwg D6104 Material release note required.		1/05-03-24	10
3	RG	Receive and Inspect for raw material dimensions. <b>Ensure material release note is attached.</b>	<i>CD</i>	05-04-01	10
4	MS	Turn blank for Haas as per Folio FA079	<i>S.G</i>	05-05-12	10
5	QC1	Inspect all dimensions as per Dwg D2940	<i>JG</i>	05-05-12	10
6	MV	Machine as per Folio FA079	<i>JL/E</i>	05-05-12	10
7	MV	Tumble & Deburr	<i>JL/E</i>	05-05-13	10
8	QC1	Inspect all dimensions to inspection sheet as per Dwg D2940	<i>JL/E</i>	05-05-13	10
9	QC8	Inspect dimensions for second check	<i>JL</i>	05-06-01	10
10	FP	Powder Coat White (4.3.5.2) per QSI 005 4.3	<i>W</i>	05-06-02	10
11	QC3	Inspect Powder Coat	<i>ml</i>	05-06-03	16
12	ST	Identify and stock	<i>ml</i>	05-06-03	16
13	AC	Cost / part <i>143.75</i>	<i>JG</i>	05-06-07	16
14	DC	Close W/O <i>143.75</i> Inspect Level 21	<i>KJ</i>	05-06-08	16

Rev	Date	Change	Revised By	Approved
A	01.01.08	Preliminary Issue	EC	
B	01.08.15	Removed Heat treating	EC	
C	02.11.26	Reformat; Added P/O	KJ / <i>RF RF</i>	<i>gf</i>

RELEASED  
02/11/29 *RF*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

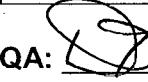
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			
05-05-13	3	chamber on edge too deep. see attached details and authorisation.	 p05f12	OK per DS, see attached	 05-05-13	 05-06-08	 p05f12	 05-06-08
		2 parts affected						

Part No: D2940-1

PAR #: \_\_\_\_\_

Fault Category: \_\_\_\_\_

NCR: Yes

 NoDQA: 

Date: 05/06/08

NOTE: Date &amp; initial all entries

QA: N/C Closed: \_\_\_\_\_

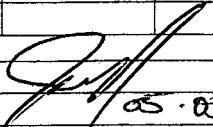
Date: \_\_\_\_\_

DART AEROSPACE LTD	Work Order:	22835
Description: Ø3.250 Support	Part Number:	D2940-1
Inspection Dwg: D2940 Rev. A1		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B & record below:

Dim	Min	Max	Go/No Go Gauge	Recorded Actual Dimensions				By	Date
				1	2	3	4		
<b>Lathe Section</b>									
A	3.211	3.216	3.215	3.216	3.216	3.216	3.216		
B	4.946	4.966	4.959	4.958	4.958	4.958	4.959		
C	0.718	0.738	0.727	0.724	0.728	0.727			
D	0.090	0.110	0.103	0.104	0.109	0.108			
E	3.564	3.584	3.571	3.574	3.567	3.565			
F	0.022	0.042	0.032	0.032	0.032	0.032	0.032	36	05/05/22
G	3.444	3.464	3.451	3.452	3.447	3.444			
H	0.112	0.132	0.119	0.112	0.115	0.114			
I	2.170	2.190	2.180	2.183	2.183	2.184			
J	4.451	4.471	4.459	4.455	4.459	4.458			
K	0.413	0.433	0.425	0.424	0.425	0.424			
L	0.913	0.933	0.930	0.927	0.930	0.928			
M									
N									
<b>HAAS Section</b>									
AA	0.240	0.260		R.250	R.250	0.250	0.256		
AB	0.490	0.510		R.50	R.50	0.50	0.50		
AC	0.140	0.160	0	0.150	0.150	0.152	0.152		
AD	3.510	3.530		3.529	3.529	3.528	3.529		
AE	1.633	1.673		1.670	1.671	1.671	1.671		
AF	1.493	1.513		1.510	1.511	1.507	1.508		
AG	0.040	0.060		0.047	0.048	0.046	0.047		
AH	0.188	0.193	DT8706	0.188	—	—	—		
AI	0.140	0.160		0.149	0.150	0.149	0.149		
AJ	2.518	2.538	1	2.521	2.520	2.528	2.529		
AK	0.040	0.060		0.049	0.048	0.045	0.046		
AL	0.010	0.020		0.010	0.015	0.010	0.010		
AM	0.140	0.160		0.154	0.145	0.150	0.149		
AN	0.350	0.450		0.360	0.360	0.360	0.360		
AO	0.240	0.260		R.250	R.250	0.250	0.256		
AP	0.150	0.170		0.168	0.168	0.158	0.164		
AQ	0.053	0.073		R.063	R.063	0.063	0.063		
AR	101.64	105.64	DT8698	—	—	—	No tool to measure		
AS	0.257	0.262	DT8683	—	—	C	—		
AT	0.053	0.073		R.063	R.063	0.063	0.063		
AU	4.118	4.138		4.126	4.126	4.126	4.126		
AV									
AW									
<b>Accept/Reject</b>									

Measured by: J.G / CM  
Date: 05/05/11 / 05/05/20

Audited by:   
Date: 05/05/11

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RFT	

DART AEROSPACE LTD

Work Order: 22835

Description: Ø3.250 Support

Part Number: D2940-1

Inspection Dwg: D2940 Rev. A1

Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B &amp; record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	15	16	17	18	By	Date
<b>Lathe Section</b>									
A	3.211	3.216		3.216	3.216	3.215	3.215		
B	4.946	4.966		4.958	4.959	4.961	4.959		
C	0.718	0.738		0.729	0.730	0.738	0.727		
D	0.090	0.110		0.110	0.109	0.110	0.110		
E	3.564	3.584		3.567	3.569	3.569	3.568		
F	0.022	0.042		0.032	0.032	0.032	0.032	3.6	05/05/02
G	3.444	3.464		3.447	3.447	3.447	3.447		
H	0.112	0.132		0.116	0.117	0.115	0.117		
I	2.170	2.190		2.183	2.183	2.182	2.183		
J	4.451	4.471		4.458	4.457	4.457	4.458		
K	0.413	0.433		0.429	0.430	0.429	0.428		
L	0.913	0.933		0.920	0.923	0.928	0.930		
M									
N									
<b>HAAS Section</b>									
AA	0.240	0.260		0.250	0.250	0.250	0.250		
AB	0.490	0.510		0.50	0.50	0.50	0.50		
AC	0.140	0.160		0.159	0.156	0.155	0.158		
AD	3.510	3.530		3.529	3.530	3.529	3.530		
AE	1.633	1.673		1.671	1.668	1.669	1.666		
AF	1.493	1.513		1.509	1.510	1.510	1.507		
AG	0.040	0.060		0.053	0.063	0.049	0.054		
AH	0.188	0.193	DT8706						
AI	0.140	0.160		0.149	-152	-153	-153		
AJ	2.518	2.538		2.528	2.528	2.528	2.528		
AK	0.040	0.060		0.047	0.052	0.048	0.048		
AL	0.010	0.020		0.010	0.010	0.010	0.010		
AM	0.140	0.160		0.148	-147	-147	-148		
AN	0.350	0.450		0.380	-385	-385	-390		
AO	0.240	0.260		0.250	0.250	0.250	0.250		
AP	0.150	0.170		0.158	-161	-163	-161		
AQ	0.053	0.073		0.063	0.063	0.063	0.063		
AR	101.64	105.64	DT8698		No TCR	To measure			
AS	0.257	0.262	DT8683						
AT	0.053	0.073		0.063	0.063	0.063	0.063		
AU	4.118	4.138		4.130	4.129	4.128	4.129		
AV									
AW									
<b>Accept/Reject</b>									

Measured by:	J.L.
Date:	05/06/01

Audited by:	<i>[Signature]</i>
Date:	05/06/01

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF	<i>[Signature]</i>

RELEASED  
03.07.01 RF

DART AEROSPACE LTD

Work Order: 22833

Description: Ø3.250 Support

Part Number: D2940-1

Inspection Dwg: D2940 Rev. A1

Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2940 Rev. A1/ DSK081 Rev. B &amp; record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	19	210	3	4	By	Date
Lathe Section									
A	3.211	3.216		3.215	3.216				
B	4.946	4.966		4.956	4.953				
C	0.718	0.738		0.728	0.725				
D	0.090	0.110		0.100	0.109				
E	3.564	3.584		3.570	3.569				
F	0.022	0.042		0.032	0.030				
G	3.444	3.464		3.446	3.446				
H	0.112	0.132		0.117	0.116				
I	2.170	2.190		2.183	2.184				
J	4.451	4.471		4.458	4.458				
K	0.413	0.433		0.430	0.429				
L	0.913	0.933		0.929	0.927				
M									
N									
HAAS Section									
AA	0.240	0.260		.250	.250				
AB	0.490	0.510		.500	.500				
AC	0.140	0.160		.150	.153				
AD	3.510	3.530		3.529	3.529				
AE	1.633	1.673		1.665	1.664				
AF	1.493	1.513		1.505	1.504				
AG	0.040	0.060		.045	.049				
AH	0.188	0.193	DT8706						
AI	0.140	0.160		.153	.152				
AJ	2.518	2.538		2.528	2.528				
AK	0.040	0.060		.050	.052				
AL	0.010	0.020		.010	.010				
AM	0.140	0.160		.148	.149				
AN	0.350	0.450		.390	.385				
AO	0.240	0.260		.250	.250				
AP	0.150	0.170		.163	.164				
AQ	0.053	0.073		.063	.063				
AR	101.64	105.64	DT8698	"no tool to measure"					
AS	0.257	0.262	DT8683	~	~				
AT	0.053	0.073		.063	.063				
AU	4.118	4.138		4.127	4.127				
AV									
AW									
Accept/Reject									

Measured by:	J.L.
Date:	05/06/01

Audited by:	<i>[Signature]</i> 05-06-01
Date:	

Rev	Date	Change	Revised by	Approved
A	02.12.12	New Issue	KJ/RF <i>[Signature]</i>	<i>[Signature]</i>

Job Costing Report

Dart Aerospace Ltd.  
Hawkesbury

Mar 23, 2005  
07:09 am

Work Order No	:	0022835	Department Code:	
Project Name	:	D2940-1	Burden Flags	: NNNNNNNN
Project For	:	WK515	WO Status	: Open
Work Order Type	:	Main	Invoice State	: Not Invoiced
Main WO Number	:		Invoice Date	:
House Part Number	:	D2940-1	Invoice Number	:
Description	:	Support	Invoice Amount	: 0.00
Manufactured	:	Yes		
Amount Req'd	:	10	Order Entry No	:
Amount Done	:	0	OE Value	: 0.00
Start Date	:	03-23-05	Est Mark Up	: 0.000%
Est Finish Date	:	04-15-05	Actual Mark Up	: 0.000%
Act Finish Date	:			
Drawings Reqd	:	No		
Ok for Approval	:			
Approval Rec'd	:		\$0 Posted to Finished Goods	

	Estimated	Actual	Var. %	Posted	To Post
Material Cost	: 0.00	0.00	0.00	0.00	0.00
Engineering Hours	: 0.00	0.00	0.00		
Engineering Cost	: 0.00	0.00	0.00	0.00	0.00
Production Hours	: 0.00	0.00	0.00		
Production Cost	: 0.00	0.00	0.00	0.00	0.00
Packaging Hours	: 0.00	0.00	0.00		
Packaging Cost	: 0.00	0.00	0.00	0.00	0.00
OverHead Hours	: 0.00	0.00	0.00		
OverHead Cost	: 0.00	0.00	0.00	0.00	0.00
CNC Hours	: 0.00	0.00	0.00		
CNC	: 0.00	0.00	0.00	0.00	0.00
Misc. Hours	: 0.00	0.00	0.00		
Misc.	: 0.00	0.00	0.00	0.00	0.00
<hr/>					
Burden	: 0.00	0.00	0.00		
<hr/>					
Total Cost	: 0.00	0.00	0.00		
Mark up	: 0.000	0.000			
Selling Cost	: 0.00	0.00			

	Estimated	Actual
Labour Hrs/Amount Done	: 0.00	0.00
Profits/ (Loss)	: 0.00	0.00

CB7834



GLORIA MATERIAL TECHNOLOGY CORP.

INSPECTION CERTIFICATE

台南縣新營市新中路35號1樓  
1FL, NO.35, HSIN CHUNG RD., HSIN YING,  
TAINAN, TAIWAN, ROC

TEL: (06)6520000  
FAX: (06)6520088

Messrs: PROGRESSIVE ALLOY STEEL UNLIMITED L.L.C.

Order No: 2004003262

Grade: 17-4PH

P.O.NO.: 3370

FILE NO: 2004004782-A

Size: 4-1/2"

Date: 11/30/2004

HEAT-Lot No: S2301-40

Weight: 1026.0KG

P'cs: 3

Condition: HF-Solution Annealed-Peeled

Chemical Composition (wt%)

C	Si	Mn	P	S	Ni	Cr	Mo	Cu	Nb+Ta
Min.				0.015	3.00	15.00		3.00	0.15
Max.	0.07	1.00	1.00	0.040	0.030	5.00	17.50	0.50	5.00
Result	0.03	0.36	0.64	0.021	0.023	4.48	15.79	0.13	3.25

Mechanical Properties Spec.

Hardness(1/2R)	Grain Size	$\delta$ -Ferrite	H900-Hardness(Avg.)
Spec.Min.			40HRC
Spec.Max.	363HB	5%	47HRC
Result	333HB	7.5	45.1HRC

Tensile Test

Unit	Elongation(A)	Tensile Strength(Rm)	Yield Strength(Rp)	Reduction of Area(%)
Min.	%	KSI	KSI	%
Max.	10	190	170	40
Result	20	210	184	53

Non-Metallic Inclusions : (AMS 2303C)

Severity Frequency

Max.	0.35	0.4
Result	0	0

Specification:

- ASTM A484M-03a, A564M-04, A370-03a.
- ASME SA484 (1998), SA564 (1998).
- AMS 5643Q, 2303C(Magnetic Particle Test).
- EN 10204/3.1.B.
- UNS S17400.
- SAE AMS-H-6875.

Remark:



Our quality and environment management system have been certified by ISO9001 QMS and 14001EMS.  
We hereby certify that the material described herein has been manufactured and tested with satisfactory result in accordance with the requirement of  
the above material specification. We hereby inspection Certificate comply with EN10204 3.1.B.

Date: 3-29-05
Cust: DART AEROSPACE
W/O #: 123023
Qty: 235
<input checked="" type="checkbox"/> Size <input type="checkbox"/> Special Instructions
<input checked="" type="checkbox"/> Part # <input checked="" type="checkbox"/> Alloy <input checked="" type="checkbox"/> Heat/Lot
These test reports are for material shipped on your PO# 074984
From TMX Copper & Brass Sales
<i>R. Mc Cederney</i>
Quality Representative
<i>Attn: QA Department</i>
Customer Part #

Hsin-Jung Huang  
QA SECTION  
*hsin-jung Huang*



GLORIA MATERIAL TECHNOLOGY CORP.

INSPECTION CERTIFICATE

台南縣新營市新中路35號1樓  
1FL., NO 35, HSIN CHUNG RD, HSIN YING,  
TAINAN, TAIWAN, ROC

TEL: (06)6520000  
FAX: (06)6520088

Messrs: PROGRESSIVE ALLOY STEEL UNLIMITED L.L.C.

FILE NO: 2004004782-A

Size: 4-1/2"

Date: 11/30/2004

Order No: 2004003262

Grade: 17-4PH

P.O.NO.: 3370

HEAT-Lot No: S2301-40

Weight: 1026.0KG

P'cs: 3

Condition: HF-Solution Annealed-Peeled

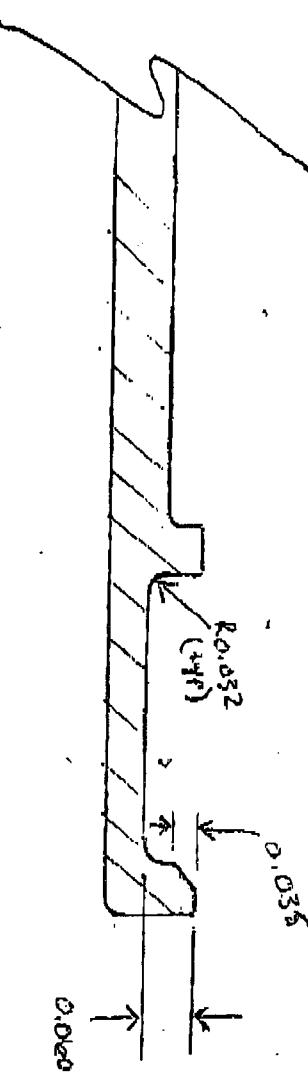
1. MANUFACTURING PROCESS: EAF+LHF+VOD, FORGED OR HOT ROLLED.
2. SOLUTION TREATMENT: 1900F FOR 30 MIN/INCH PLUS ONE ADDITIONAL HOUR (MINIMUM ONE HOUR), RAPIDLY COOLED TO BELOW 90F.
3. MATERIAL IS FREE FROM KNOWN CONTACT WITH MERCURY AND RAIUM.
4. MATERIAL IS FREE FROM WELDS OR WELD REPAIRS.
5. ULTRASONIC TEST: OK.
6. MACRO/MICRO OK.
7. MECHANICAL PROPERTIES TESTED AS PER H900 CONDITION.
8. REDUCTION RATION 4:1 MIN
9. FURNACES CALIBRATED TO MIL-H-6875.



Hsin-Jung Huang  
OA SECTION  
*Hsin-Jung Huang*

Our quality and environment management system have been certified by ISO9001 QMS and 14001EMS.  
We hereby certify that the material described herein has been manufactured and tested with satisfactory result in accordance with the requirement of the above material specification. We hereby Inspection Certificate comply with EN10204 3.1 B.





ACCEPTABLE  
DEVIATION

~~05.05.12~~

ATTACH TO WORK ORDER

Chamfer blends into R0.032 rad.  
No flat between  
chamfer & radius.

ER. 05.05.12

